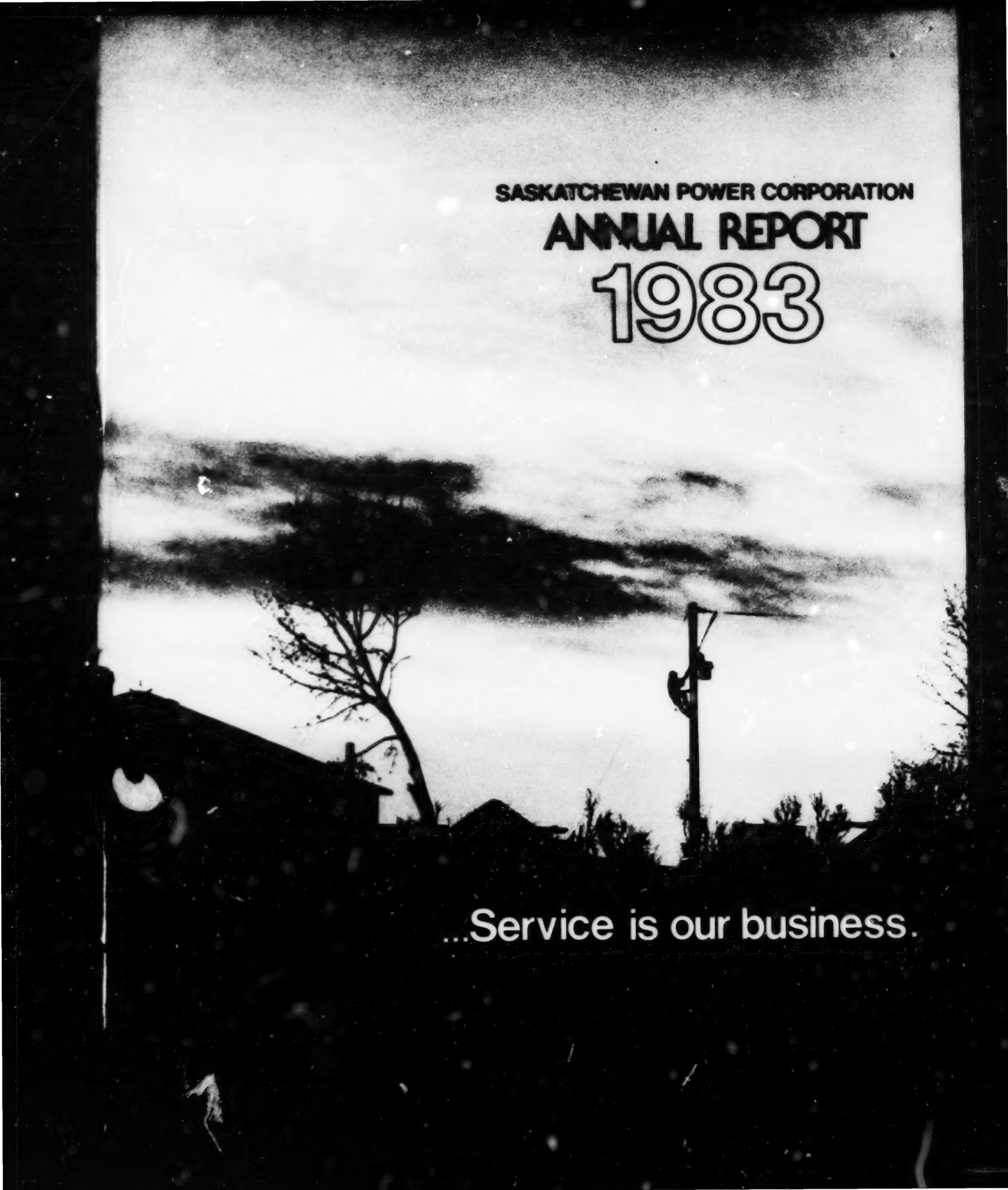

SASKATCHEWAN POWER CORPORATION
ANNUAL REPORT
1983
...Service is our business.

# Corporate Highlights

| | 1983 | 1982 |
|---|---|---|
| | ($ millions) | |
| Revenue | 704.9 | 646.9 |
| Net Loss | 19.7 | 3.4 |
| Funds from Operations | 47.5 | 56.1 |
| Capital Expenditures | 348.5 | 272.3 |
| Energy delivered to Customers | | |
| —electricity (billions of kilowatt hours) | 9.1 | 8.5 |
| —natural gas (millions of cubic metres) | 2 823 | 3 012 |

**COVER PHOTO:**
Service is our business. Mort Johnson, SPC lineman, Regina, fuses farm transformer.

**Saskatchewan Power Corporation**
**2025 Victoria Avenue**
**Regina, Saskatchewan**
**Canada S4P 0S1**

Head Office building in Regina.

84- 3052 /

# Letter of Transmittal

The Hon. Lorne McLaren at opening of Saskatchewan's first natural gas vehicle refuelling station.

Regina
1984 March

To His Honour
F.W. Johnson
Lieutenant Governor
of the Province of Saskatchewan

Sir:

I have the honour to submit herewith the Annual Report of the Saskatchewan Power Corporation for the year ended 1983 December 31, including the financial statements for the year duly certified by the Provincial Auditor and in the form approved by the Treasury Board, all in accordance with The Power Corporation Act.

I have the honour to be, Sir,
Your obedient servant,

Lorne McLaren

Lorne McLaren,
Minister-in-Charge
Saskatchewan Power Corporation

# Board of Directors

**Hon. L.A. (Lorne) McLaren**, Minister in Charge, Yorkton.
Appointed 1982 June.

Mr. McLaren is minister of labor and minister in charge of SPC. He is vice-chairman of the Crown Investments Corporation and chairman of that board's Utilities Committee. He was chairman of the board of SPC until 1983 November and is now vice-chairman. Mr. McLaren spent 31 years with the Morris Rod-Weeder Company Ltd., a farm equipment manufacturer in Yorkton.

**G.D. (George) Hill**, QC, Chairman, Estevan.
Appointed 1982 June.

Mr. Hill was a partner in the law firm of Hill, Ball, Cundall and Bridges in Estevan. He has also been an active farmer and businessman. He became chairman of the board of SPC on 1983 November 04.

**A.E. (Alfred) Bechard**, Sedley.
Appointed 1982 October.

Mr. Bechard is a grain farmer and is a past director and chairman of the board of the Weyburn Inland Terminal Ltd. He has also been active on various community service boards.

**W.H. (Wally) Blaisdell**, APR, Regina.
Appointed 1982 June.

Mr. Blaisdell spent 20 years working in the energy industry, including 12 years with SPC. He is now vice-president of Pioneer Life Assurance Company.

**E.A. (Edward) Laurence**, Yorkton.
Appointed 1982 October.

Mr. Laurence is president of Laurence Investments Ltd., Yorkton and vice-president/secretary-treasurer of the Yorkton Broadcasting Company.

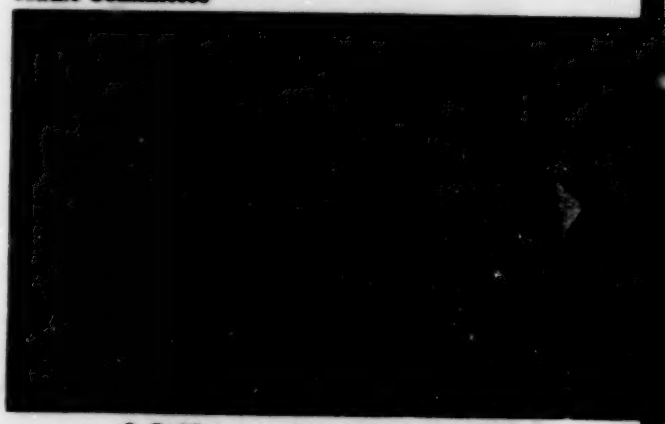
**M.M. (Monty) Manning**, North Battleford.
Appointed 1982 October.

Mr. Manning is owner of Manning Mercury Sales Ltd., an auto and farm implement dealership in North Battleford.

**Executive Committee**

D. Stanhev, G.D. Hill (Chairman),

**Audit Committee**

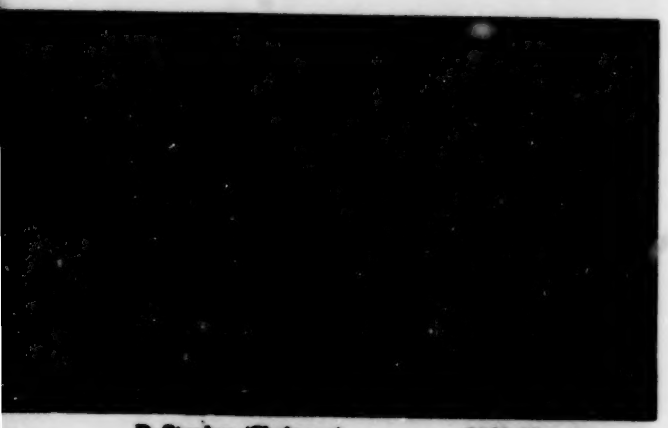


L. Smith, F.A. Meyers,

**Finance Committee**

A.E. Bechard, P. Olynik,

E.A. Lawrence. F.W. Woodward.



D. Stankov (Chairman). M.M. Manning.

G.R. Thorpe. W.H. Blakdell (Chairman).

**F.A. (Dan) Meyers, Saskatoon.**
**Appointed 1982 June.**

Mr. Meyers is owner and president of Meyers Auto and Industry Limited and is involved in community service.

**P. (Patricia) Olynik, Moose Jaw.**
**Appointed 1982 November.**

Mrs. Olynik is a homemaker who is very active in community affairs and has been a director of several local organizations.

**L. (Laura) Smith, Pathlow.**
**Appointed 1982 November.**

Mrs. Smith is engaged in full-time farming, with past experience in library work. She has participated in municipal affairs and community activities.

**D. (Donald) Stankov, CA, Regina.**
**Appointed 1982 June.**

Mr. Stankov is secretary-treasurer of Thyssen Mining Construction of Canada Ltd.

**G.R. (Glenn) Thorpe, Yorkton.**
**Appointed 1982 October.**

Mr. Thorpe was general foreman of powerline construction with SPC for 15 years and has since done private contracting with his own company, Tower Line Contractors Ltd., until his retirement.

**F.W. (William) Woodward, Regina.**
**Appointed 1982 June.**

Mr. Woodward is a regional director of Reed Stenhouse Ltd., an insurance firm, and is a director of Comaplex Resources Limited, an oil and gas firm.

# The Saskatchewan Power Corporation

The Saskatchewan Power Corporation (SPC) was established by Order-in-Council in 1949 and formalized as a Crown corporation by an Act of the Legislature passed in 1950. It replaced the Saskatchewan Power Commission, established in 1929 to develop an integrated provincial electrical system.

In 1949, it was the corporation's immediate objective to extend service to the many villages, hamlets and farms having inadequate or no electrical service. Under the Power Corporation Act, the mandate of SPC includes the generation, transmission, distribution and sale of electrical energy; and the production, purchase, transmission, distribution and sale of natural gas.

The corporation began operating the natural gas utility in 1952 and by the end of 1983, close to 400 cities, towns and villages had been served. At the end of 1983, the corporation was serving 381 278 customers with electricity and 244 441 customers with natural gas.

The Saskatchewan Power Corporation is governed by a Board of Directors that determines policy and objectives. Board members are appointed by the Provincial Government.

Rates charged to the corporation's gas and electricity users are subject to review and approval by the Public Utilities Review Commission (PURC) of Saskatchewan.

Aerial view of Poplar River Power Station.

## Senior Corporate Executive

**E.B. (Bruce) Campbell**
President

**A.J. (Tony) Bast**
Vice-President
Human Resources

**O.W. (Oscar) Hansen**
Senior Vice-President
Customer and Corporate Services

**A.N. (Arleen) Hynd**
Vice-President
Finance

**R.G. (Bob) Lawrence**
Senior Vice-President
Operations

**M.G. (Murray) Leach**
Vice-President
Public Affairs

**K.D. (Katherine) Wellman, QC**
General Counsel and Secretary to
the Board of Directors

# Chairman's Letter

G.D. Hill

The past year has seen many changes at Saskatchewan Power. In my capacity as chairman, I would like to take the opportunity to thank members of the board of directors, the president, management and staff of the corporation for their assistance in achieving some very important goals.

The foremost objective of the corporation remains achieving a positive return by year-end 1985 and at the same time to structure rates that are fair and reasonable for our customers and satisfy the financial well-being of the corporation.

On behalf of the board, I wish to acknowledge the co-operation of employees in implementing financial restraint measures.

As part of our policy to support the Saskatchewan economy, the corporation is giving priority to Saskatchewan labor, materials, services and products on a competitive basis in awarding contracts. The corporation announced a program in November to encourage Saskatchewan manufacturers and suppliers to do business with SPC and to stimulate production and competition in the Saskatchewan marketplace.

In our service to customers, we are aiming at a high level of efficiency and dependability in supplying energy to the people of the province. While continuing to encourage the prudent use of electricity and natural gas, we will be aggressively marketing our products where appropriate.

We are encouraging greater use of natural gas for heating homes, businesses, farms and institutions, as a lower cost fuel than electricity, oil or propane. Through a new program called Enerwise, corporation staff will be promoting the wise use of energy and the choice of the most economical form of energy. The program will offer low interest loans of up to $3 000 to assist customers in providing energy-saving features in new and existing buildings and to convert to natural gas.

Part of our effort to make a more economical and convenient fuel available to more Saskatchewan residents is the Saskatchewan Natural Gas Distribution Program. In 1983, the program extended the use of natural gas to some 3 650 homes in rural Saskatchewan.

Saskatchewan Power will continue to provide reliable, economic and efficient service while applying sound management and business principles.

The board of directors has had a productive and demanding year as we worked together to formulate policies and guidelines for the corporation. The Hon. Lorne McLaren, as minister in charge of the Saskatchewan Power Corporation, has provided able and decisive leadership, and I express a deep debt of gratitude to him.

I am pleased to continue in the position of chairman and I do so with a determination that we shall confront the economic obstacles that affect us. We shall continue to provide a high and enhanced level of service as we continue to meet customers' energy needs in Saskatchewan.

George D. Hill,
Chairman

# President's Letter

During the very cold weather in 1983 December, the corporation experienced record loads on both the gas and electric systems. These peak loads severely stressed both the system facilities and the operating employees involved, but there were few problems that affected service to customers.

The December experience has required the corporation to review its load growth forecasts and to increase the 10-year electricity forecast from the previous level of 2.1 per cent per annum to a new level of 2.8 per cent per annum. If the new forecast proves to be correct then some advancement of future generating capacity will be required.

Construction continued on the 252 MW Nipawin Hydroelectric Project, due to become operational in late 1985 and 1986. The project is on schedule and below budget. The estimate of final cost has been lowered from $600 million to $570 million as productivity on the project is high and contract quotations are coming in below the engineers' estimates.

From a financial point of view, 1983 was a difficult year. The loss of $19.7 million was by far the largest annual loss ever incurred during the history of the corporation.

Nevertheless, the loss was much smaller than had been forecast. This improvement resulted from higher than expected revenue from increased energy consumption, from an effective cost control program which reduced expenses in many areas, a reduction of staff from attritition and a Voluntary Early Retirement Program, and from lower than forecast interest rates. These reductions in expenses were partially offset by lower than normal water flows in the Saskatchewan and Churchill River systems and a lower than expected year-end exchange rate for the Canadian dollar.

On April 26 the corporation applied to the Public Utilities Review Commission for rate increases averaging 23.7 per cent for natural gas and 21.4 per cent for electricity. The Commission authorized interim rate increases effective July 09 of 13 per cent for natural gas (subsequently reduced to 10.9 per cent effective September 01) and 15 per cent for electricity except for small commercial customers (General Service II and III) which received no increase. The interim increase had the effect of increasing revenues and therefore reducing the 1983 loss by $42 million.

Following a total of 14 days of public hearings in 1983 the Commission issued an Order on December 16. It authorized an increase in electric revenue averaging 9.7 per cent following approval of detailed rates expected to be effective on 1984 June 01. It did not authorize any further increase in natural gas revenue.

E.B. Campbell

The major challenge facing the corporation in the immediate future is to achieve an improvement in financial results through 1984 and 1985. This is necessary to strengthen the corporation's financial position so that it will be able to absorb the very high interest cost that will be associated with completion of the Nipawin project in 1986. To meet this challenge, the corporation will be continuing close control on all costs and will of necessity be seeking further rate increases.

I sincerely appreciate the dedication and co-operation of all employees during this year of financial restraint and particularly during the severe weather and unprecedented high loads on both systems during December. The leadership, guidance and encouragement provided by the Board of Directors are also acknowledged.

E.B. Campbell,
President

# Operations

## Electric

The annual system net peak demand reached a record of 2 010 MW (megawatts) on 1983 December 19 and 20, ten per cent above the previous high of 1 829 MW on 1982 January 15. This load was 222 MW above the load forecast for 1983. The increase is largely a result of increased industrial consumption.

Electricity in Saskatchewan comes from three sources: thermal generation involving the burning of coal and natural gas, hydro generation utilizing provincial river systems, and imports of electricity from neighboring utilities.

Thermal generating stations produced 75.1 per cent of the total electrical supply, up from 74 per cent in 1982. Hydro generating stations supplied 21 per cent of the total electricity, which was down from 23 per cent in 1982. A total of 3.9 per cent of Saskatchewan's electricity was imported from Manitoba Hydro and Basin Electric Power Co-operative (BEPC) of North Dakota. This was up from three per cent last year.

The flow of the Saskatchewan and Churchill River systems was lower than average in 1983 reducing by 18 per cent the amount of low-cost hydroelectricity available to the system.

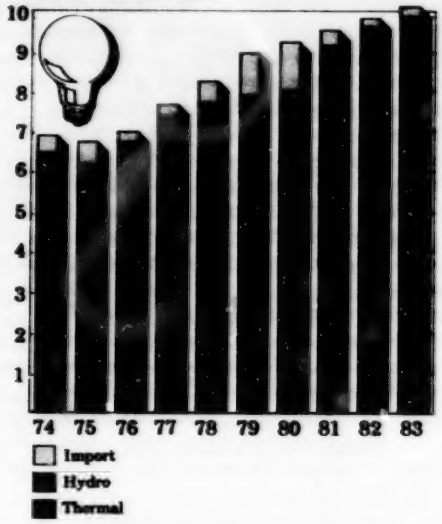
Saskatchewan lignite coal burned at the Boundary Dam Power Station, the nearby Estevan Generating Station and the Poplar River Power Station near Coronach supplied 72.3 per cent of the electricity required in 1983, up from 69 per cent in 1982.

The second unit at the Poplar River Station was placed in commercial service on July 11 and the unit has performed well during the initial months of operation. The 294 MW unit made a significant contribution toward meeting the electrical needs of the corporation's customers during the 1983/84 winter.

SPC's thermal stations burned 6 566 000 Mg (megagrams) of Saskatchewan lignite coal in 1983. Of this total, 4 044 000 Mg was used in the Boundary Dam and Estevan Stations

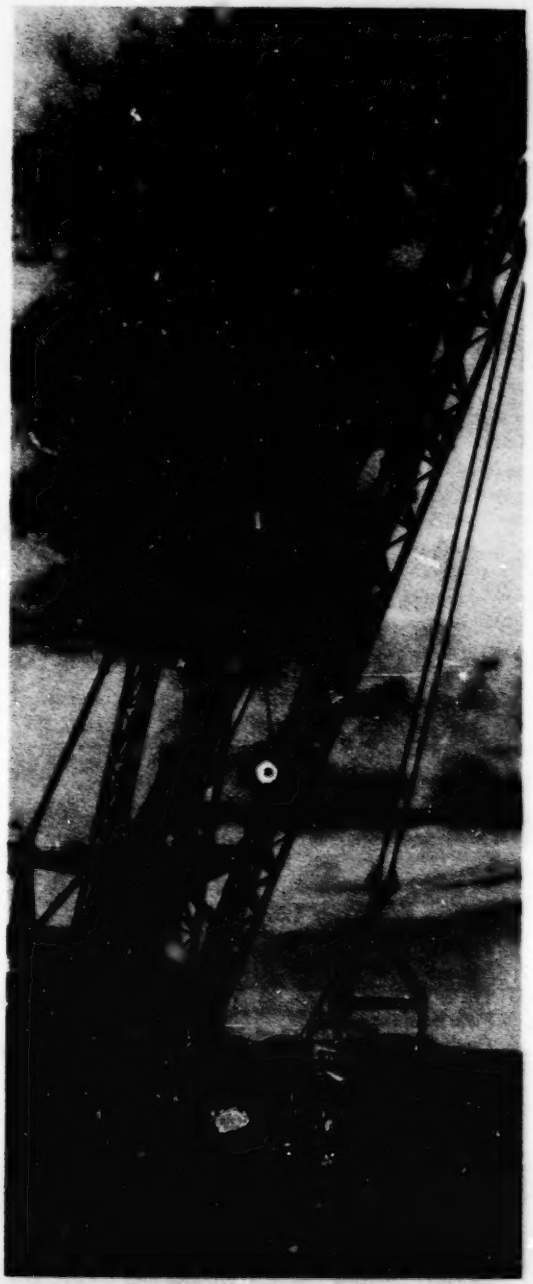
**ELECTRICITY SOURCES**

billions of kilowatt hours




## Generation Statistics

| | 1983 Rated Generating Capacity (kilowatt) | 1983 Gross Generation (kW h ×10⁶) | 1983 Generation % Increase or (Decrease) From 1982 |
|---|---|---|---|
| HYDRO | | | |
| Squaw Rapids | 280 000 | 873 080 | (14.5) |
| Coteau Creek | 187 000 | 603 230 | (9.0) |
| Island Falls | 97 600 | 709 670 | 17.5 |
| Total Hydro | 564 600 | 2 185 980 | (4.5) |
| STEAM | | | |
| Boundary Dam | 874 500 | 4 965 780 | (0.2) |
| Estevan | 65 000 | 196 082 | (32.6) |
| Poplar River | 588 000 | 2 966 200 | 49.9 |
| Queen Elizabeth | 232 000 | 316 264 | (27.6) |
| Total Steam | 1 759 500 | 8 445 571 | 9.7 |
| INTERNAL COMBUSTION | | | |
| Success | 45 000 | 410 | (90.1) |
| Landis | 70 000 | 36 062 | (37.5) |
| Total Internal Combustion | 115 000 | 36 472 | (41.0) |
| TOTAL GENERATION | 2 439 100 | 10 668 023 | 6.2 |
| Less Station Service | | 679 080 | 11.2 |
| Net Generated | | 9 988 943 | 5.8 |
| Net Purchased | | 408 347 | 28.5 |
| Net System kW h (×10⁶) | | 10 397 290 | 6.6 |
| Northern Diesel Plants | 8 350 | 9 371 | (1.9) |
| Northern Purchases | | 5 990 | (63.5) |
| Total | 2 447 450 | 10 412 651 | 6.5 |
| Annual Peak Load (Net) (1983-12-20-17:43) | 2 010 000 | | |
| Annual Peak Load (Gross) (1983-12-20-17:43) | 2 120 000 | | |
| Minimum Load (Net) (1983-07-04-05:00) | 615 000 | | |



Dragline in operation near Coronach. The machine, called "Great Gus," is one of the largest of its type in Canada and is used for strip mining at the Poplar River Mine.

and 2 522 000 Mg was consumed at the Poplar River Station.

To meet the expanded coal requirements at the Poplar River Power Station major equipment and facilities were added at the Poplar River Mine. These included an addition to the mine service building and two new 136-Mg coal haulers, and construction of a second 69 $m^3$ dragline which was nearing completion at year end.

In 1983, the corporation's Souris Valley Mine at Estevan was closed. The 30 staff affected were offered alternative employment with the corporation. The coal produced at that mine can be more economically provided by the two contractors that supply coal to the Boundary Dam Power Station.

Land reclamation at the Poplar River Mine site continued with the stripping and stockpiling of coversoil, spoil levelling and coversoil replacement.

At the Souris Valley Mine at Estevan, all spoil was levelled and prepared for seeding in accordance with mine closure requirements.

At the contract mines supplying coal to the Boundary Dam Power Station, reclamation related to current mining was continued.

Fly ash recovered from the burning of lignite coal at Boundary Dam is used as a replacement for a portion of the cement used in concrete. There was an 85 per cent increase in sales of fly ash, which amounted to 45 100 Mg of which 15 500 Mg was delivered to the Nipawin Hydroelectric Project.

Gross revenue from fly ash sales totalled $2.1 million, an increase of 152 per cent over 1982.

## Natural Gas

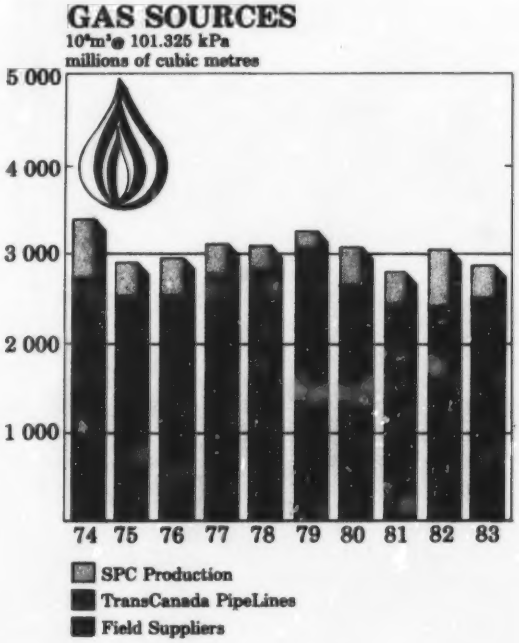
Total gas consumption for a single day in 1983 peaked at 20.0 million cubic metres on December 23. This surpassed by 7.5 per cent the previous record of 18.6 million cubic metres set on 1982 January 15.

The total natural gas delivered to customers in 1983 was 2 823 million cubic metres compared to 3 012 million cubic metres in 1982, a decrease of 6.3 per cent.

Natural gas in underground storage reached 343 million cubic metres at the beginning of the heating season 1983 November 01. This gas was available to the system at a peak rate of approximately 8.9 million cubic metres daily or 44.5 per cent of the 1983 peak day requirements. Natural gas storage allows for greater use of transmission pipelines for transporting gas to storage reservoirs when demand by customers is low in summer, and provides greater ability to meet peak demand for gas in the winter.

A number of new Saskatchewan sources of gas were added to the corporation's pipeline system during 1983 under long-term contracts. One supplier in the Fort Pitt area and two suppliers in the Hatton area commenced delivering natural gas from conventional gas fields. In addition, four suppliers commenced delivering natural gas that is produced in association with oil in Hoosier and Dodsland/Coleville areas. These suppliers are gathering natural gas from 780 producing oil wells. The new suppliers invested approximately $14.0 million in pipeline, compression and conditioning equipment to deliver the new gas to the corporation. The corporation installed $1.4 million in pipeline and metering facilities for receiving the natural gas. Gas purchased from these new sources will be approximately 310 million cubic metres annually.

Gas service was extended to an enhanced oil recovery (fireflood) project near Maidstone.




### Gas Supply Sources

($10^6$ m³)
(millions of cubic metres)

| Sources | 1983 | 1982 | Increase (Decrease) % |
|---|---|---|---|
| **Alberta** | | | |
| TCPL | 1 094 | 1 107 | (1.2) |
| Field Suppliers | 458 | 490 | (6.5) |
| Production | 415 | 557 | (25.5) |
| TOTAL | 1 967 | 2 154 | (8.7) |
| **Saskatchewan** | | | |
| Field Suppliers | 836 | 782 | 6.9 |
| Production | 69 | 205 | (66.3) |
| TOTAL | 905 | 987 | (8.3) |
| TOTAL VOLUME DELIVERED | 2 872 | 3 141 | (8.6) |
| Storage, Fuel and Other Users | (49) | (129) | 62.0 |
| TOTAL SOLD | 2 823 | 3 012 | (6.3) |

# Planning and Development

Aerial view of Nipawin Hydroelectric Project showing powerhouse, penstocks, headworks and river diversion structures all in various stages of construction.

View of the powerhouse under construction at the Nipawin Hydroelectric Project with headworks in background.

## Electric

The 252 MW Nipawin Hydroelectric Project continued on schedule through 1983 with commercial operation scheduled for late 1985 and early 1986.

During the summer, a work force which peaked at 1 040 placed 200 000 m³ of concrete, excavated 4 000 000 m³ of material and placed 500 000 m³ of earth fill.

Approximately 80 per cent of the work force on the Nipawin project are Saskatchewan residents.

The first stage of the Codette Switching Station was completed and put into service in April to supply construction power to the project.

Work also continued on clearing trees where the future Codette reservoir will be formed. About 70 per cent of the area has been cleared and 100 000 m³ of gravel was salvaged and stockpiled for future use.

Mitigation agreements with the Town of Nipawin, Villages of White Fox and Codette, and the RMs of Nipawin and Torch River have been finalized. A community liaison committee consisting of 23 people representing various interest groups affected by the project is chaired by a local resident, who is employed by SPC as an on-site liaison officer to deal with local issues and concerns.

Construction was completed on a 230 kV transmission line from Assiniboia to Swift Current. The line, which was put into service in 1983 February, delivers energy from the Poplar River Power Station to meet increased customer energy needs in southwest Saskatchewan.

During the year, work progressed to increase the 138/72 kV transformer capacity at the Queen Elizabeth, Pasqua, Condie, Ermine and Bankend switching stations.

Several electric supply options are being examined to determine the next generation capacity to be added to the system following the Nipawin project, sometime between 1989 and 1992. At Coronach consideration is being given to adding one or two 300-MW thermal generating units. At Estevan a feasibility study for a new 600-MW thermal plant continued. This includes an evaluation of the suitability of the proposed Rafferty Reservoir as a potential source of cooling water.

As a cost reduction measure, the A.L. Cole Station in Saskatoon was mothballed August 31. This was not a permanent closure since the station may be required for peaking service in the next few years.

## Natural Gas

In 1983, the corporation participated in the drilling of 51 gas wells, 43 of which were successful. The corporation's share of these wells increased proven reserves by 536 million cubic metres of natural gas. Of these wells (25 located in Saskatchewan and 26 in Alberta) the corporation has an average working interest of 29 per cent.

Development work on prospective gas lands in Saskatchewan and Alberta was conducted through partnerships and individually by SPC and Many Islands Pipe Lines (Canada) Limited.

SPC's proven reserves through ownership and contract totalled 57 865.5 million cubic metres at the end of 1983. This is a supply equivalent to 20.5 times the 1983 consumption rate.

A 2 400 hp reciprocating natural gas compressor installed at the Success Compressor Station was commissioned in April. The unit will replace the less fuel-efficient turbines and provide improved operating reliability and flexibility.

The development of the fifth underground storage cavern at Regina continued during the year, using the solution mining process. At year-end approximately 43 per cent of the designed cavern capacity was achieved. The project will add 22.6 million cubic metres in usable storage providing additional peaking capacity and operating flexibility for the 1984/85 heating season.

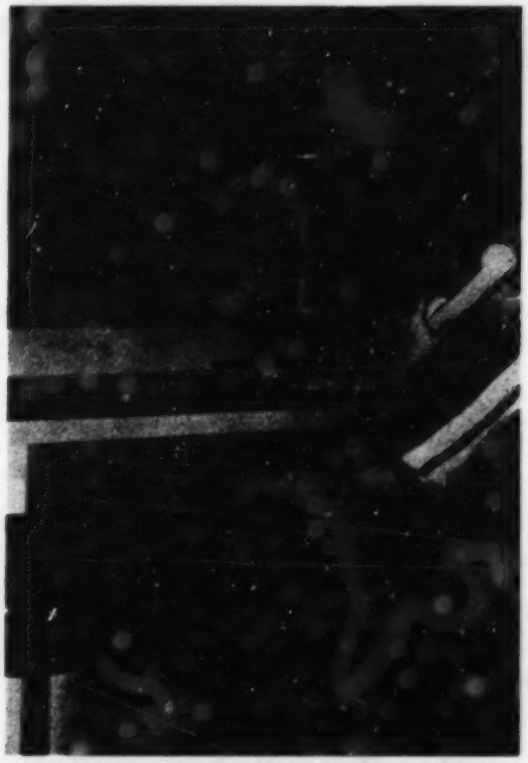
## System Control Project

The $22.5 million Gas and Electric System Control Project at Regina, which will consolidate gas and electrical control systems and the customer communication centre under one roof, progressed on schedule and on budget during the year.

In 1983, the System Control Centre building was completed and the customer communications centre was moved from head office into the new premises.

The final factory acceptance testing of the computerized control system was completed in November and the equipment was delivered December 20. This computer system is required to replace existing obsolete equipment. It will provide faster and more comprehensive information processing which will allow system operators to control both gas and electric systems. In addition, several new economic functions, such as megawatt dispatch and interchange evaluation will be provided by the computer system. These functions will help to lower system operating costs.

Commissioning of the Gas and Electric Control System will begin in early 1984 with the total project scheduled to be completed in 1985.



Operators at customer communication centre, located in the System Control building, handle after hours customer calls provincially and when necessary dispatch service personnel to respond to problems. Shown in photo are Pearl Lerat (left) and Peggy Wick.

# Customer Service

Gas serviceman Rod Waits makes a service call at the home of customer Catherine Gerlach.

SPC customer Marjorie Derak pays energy bill to Collette Grasdahl at Saskatoon office.

## Energy Consumption

Customers used 9 096 GW·h of electricity in 1983, 7.4 per cent more than in 1982. This increase is largely due to industrial activity being nearly 13 per cent higher than in 1982. Installation of electric services to oil wells increased by 50 per cent during the year.

The total use of natural gas by customers decreased 6.3 per cent from 3 012 million cubic metres in 1982 to 2 823 million cubic metres in 1983. The weather in 1983 was 9.3 per cent warmer than 1982; however, the effect of milder weather was tempered by increased industrial activity. Industrial consumption increased by 2.6 per cent in 1983.

Average yearly residential consumption of natural gas was 3 741 $m^3$, down 15.1 per cent from 4 405 $m^3$ in 1982 due to the milder weather and energy conservation measures taken by many customers.

Natural gas service was made available to 10 741 new customers including 3 650 customers under the Saskatchewan Natural Gas Distribution Program.

## Electricity customers served

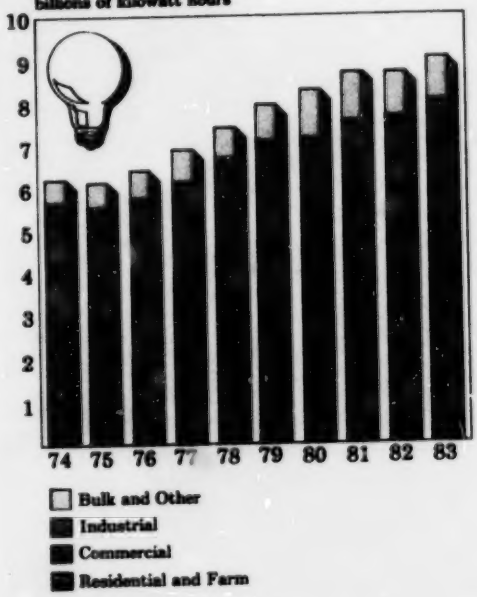
| | 1983 | 1982 |
|---|---|---|
| Residential | 260 405 | 252 101 |
| Farm | 73 157 | 71 740 |
| Commercial/Industrial | 46 771 | 45 620 |
| Street Lights | 929 | 929 |
| Intersystem and Other | 16 | 16 |
| TOTAL | 381 278 | 370 406 |

## Natural gas customers served

| | 1983 | 1982 |
|---|---|---|
| Residential | 212 450 | 204 716 |
| Farm | 3 331 | 1 256 |
| Commercial/Industrial | 28 649 | 27 716 |
| Other | 11 | 12 |
| TOTAL | 244 441 | 233 700 |

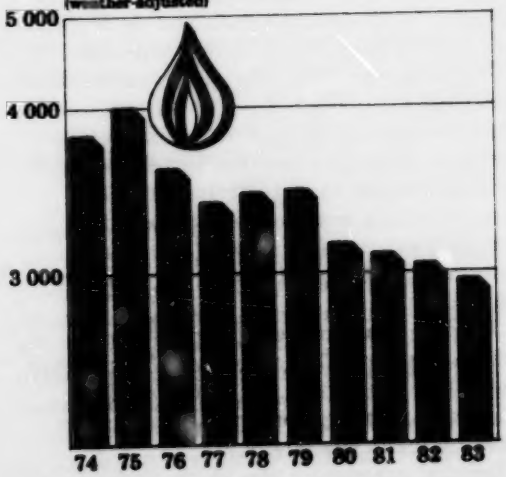
## ELECTRICITY CONSUMPTION

billions of kilowatt hours



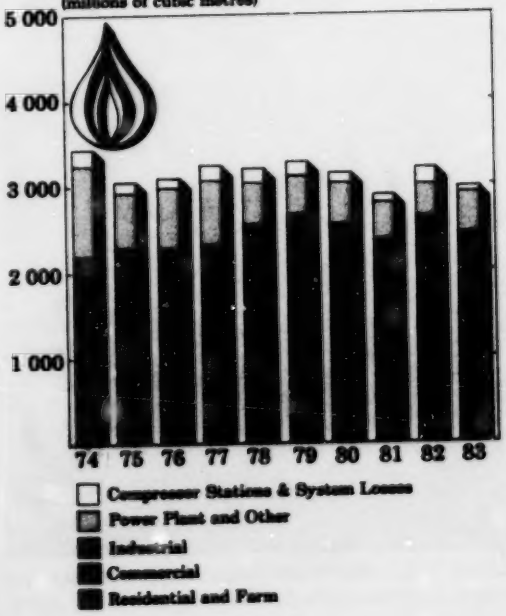

## RESIDENTIAL GAS CONSUMPTION

yearly average in cubic metres (weather-adjusted)




## GAS CONSUMPTION

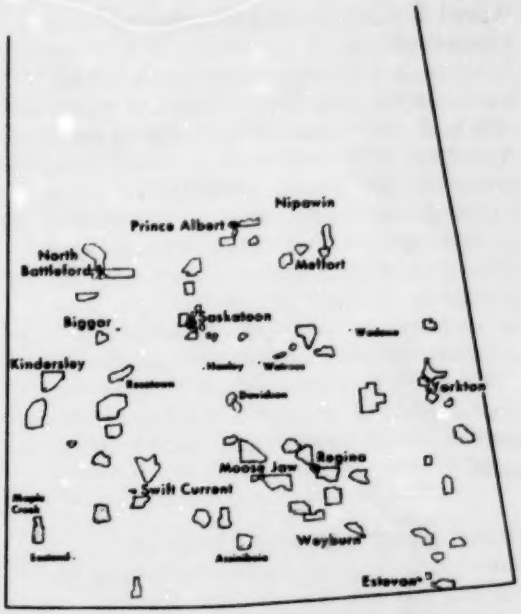
$10^6 m^3 @ 101.325 kPa$ (millions of cubic metres)



## Natural Gas Distribution Program

The Saskatchewan Natural Gas Distribution Program was initiated in 1983 to extend the service of a less expensive, more convenient fuel to farms and small urban communities. In 1983, 2 270 farm families and some 1 380 families in 54 small urban communities were provided with natural gas service. Over a seven to 10-year period, it is expected that 25 000 farms and 10 000 urban families will be served under the program.

The program encourages Saskatchewan engineering firms and Saskatchewan contractors to bid competitively on engineering, surveying, construction and installation work. Contractors are required to employ at least 80 per cent Saskatchewan residents. This amounted to approximately 400 summer jobs in 1983. An additional benefit was the development of a Saskatchewan-based plastic pipe construction industry.




1983 Saskatchewan Natural Gas Distribution Program.

Contractors install gas line at rural residence near Clavet as part Saskatchewan Natural Gas Distribution Program.

Contractor Glen Tall Trenching Co. Ltd. of Saskatoon lays plastic pipe for Natural Gas Distribution Program.

## Rural Underground Electrical Distribution

In October, the corporation completed an experimental project of a rural underground electrical distribution (RUD) system south of Annaheim. Thirty-eight kilometres of single-phase 14.4 kV cable to serve 24 farms was buried using a cable plow.

It is expected that the benefits of rural underground distribution of electricity will be greater farm safety, elimination of obstructions to farm operations, reduction in maintenance work and better appearance.

While RUD is more expensive than overhead construction, the premium is falling and the added benefits may justify the higher costs.

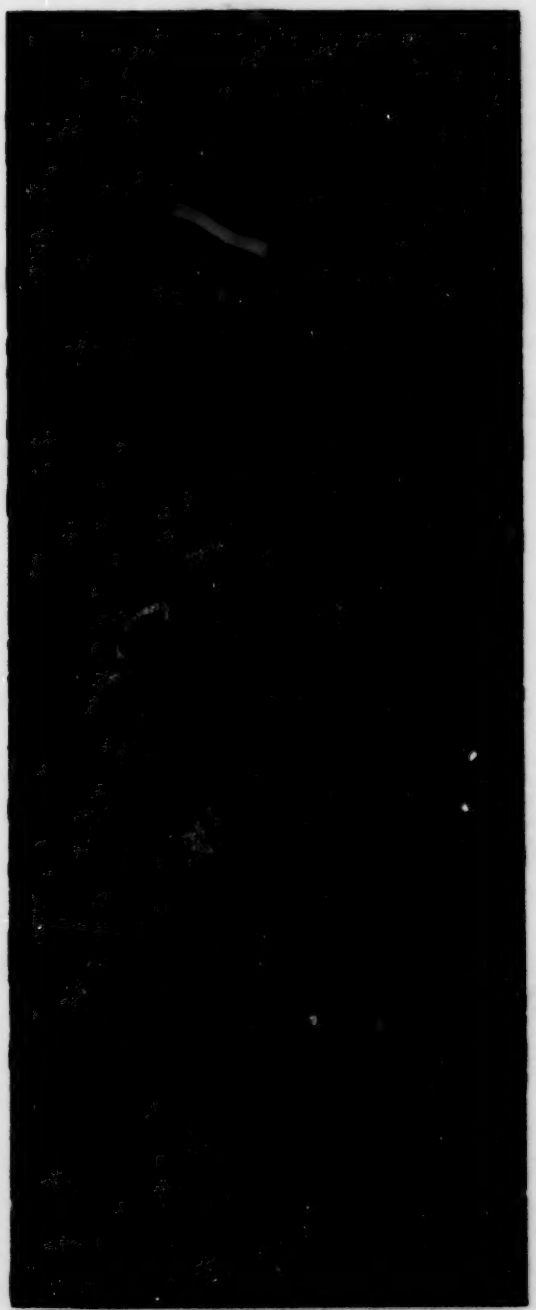
## Other Programs and Projects

Through the Energy Audit Program an on-site analysis and consultation on energy use is provided for industrial, commercial and some agricultural customers. During 1983, 267 audits were performed. They identified potential annual savings of over $5.8 million for SPC customers. Possible demand savings of 19 760 kW were identified.

A privately-owned greenhouse, partially heated by cooling water from the Boundary Dam Power Station, has been constructed near Estevan. At the same site a pilot fish-rearing facility uses the warm water discharged from the station. The water is being constantly monitored for temperature and oxygen content. The project is co-funded by the Canadian Electrical Association, Saskatchewan Parks and Renewable Resources and SPC.

During 1983, the corporation granted loans totalling $3.3 million to homeowners under the Warm-Up Saskatchewan Program and a total of $2.31 million under the Home Energy Loan Program. The Canada Oil Substitution Program, administered by SPC, offered taxable federal grants of up to $800 to customers converting heating systems to natural gas. Grants totalling $1.3 million were made in 1983.

Contractor Cec Hambath Construction Ltd. of Saskatoon uses cable plow to install rural underground distribution cable south of Annaheim. Close to 40 km of cable were buried to deliver electricity to 24 farms in the area.



Dan Mollerud, live line co-ordinator, demonstrates barehand, live line method of transmission line repair during training.

A new loan program, called Enerwise, was announced in December for introduction in 1984 March. It will replace the Warm-Up Saskatchewan and Home Energy Loan Programs by offering low-interest loans of up to $3 000 for installing or upgrading home energy saving features such as insulation, furnace conversions to natural gas, and for installation of combined oil-electric heating systems.

## Dependability of Service

In 1983, the corporation with the co-operation and assistance of the International Brotherhood of Electrical Workers Union Local 2067, implemented barehand live line techniques in power line maintenance. Fifty-two linemen took a special course to learn the technique. This method of work allows an employee to work barehanded on energized high voltage lines. It allows maintenance work to be performed in less time and at lower costs than using the normal hot stick method, while at the same time avoiding the inconvenience of power outages to customers.

Corporation staff demonstrated dedication and efficiency in restoring gas and electrical service associated with major storms throughout the year in Swift Current, Kindersley, Prince Albert and Weyburn regions, and serious flood conditions in Regina and Saskatoon.

## Customer Advisory Services

Energy management activities continued in the form of seminars, classes and presentations. SPC displays and personnel were involved in several special events such as: Futurescan, Showcase '83, Saskatchewan Business and Industry Show, Farm Progress Show, Swine Design, Mexabition and Saskatchewan Electrical Association's Electric Week.

An energy-saving contest among schools was initiated within school divisions to identify energy management opportunities, with student awareness of conservation as a primary objective.

Al Marbet, residential services advisor, answers question about SPC sponsored energy-saving contest between Saskatchewan schools.

Bruce Campbell, SPC president (right), shown with Clarence MacCormack, purchasing superintendent, at the 100 Million Dollar Market display at Saskatchewan's Centre of the Arts.

Dennis Andrews, research assistant, analyses fly ash.

## Research and Development

Laboratory and field tests are under way on air-to-air and water source heat pump systems. The purpose is to determine the operational characteristics of these systems and their ability to meet typical residential space heating loads in Saskatchewan. They are being investigated as possible alternatives to conventional heating equipment in rural residences that do not have access to natural gas supplies.

Methods are being evaluated for using fly ash to remove pollutants from flue gases emitted from coal-burning power stations. One method under study involves the stripping of sulphur dioxide from flue gases using a dry sorbent material derived from fly ash. This holds promise for controlling environmental pollution in a less expensive, more efficient manner.

The problems in analysis of electric system operation during disturbances have been linked to a lack of data. As no commercial hardware was available, the design and construction of a suitable recording device was undertaken which was installed at a major SPC switching station and monitored for two years. In 1983, a revised design was produced to further improve the flexibility of the recorder. The corporation plans to install three of these recorders at key locations to provide additional information to assist in efficient operation of the electric grid.

# Human Resources

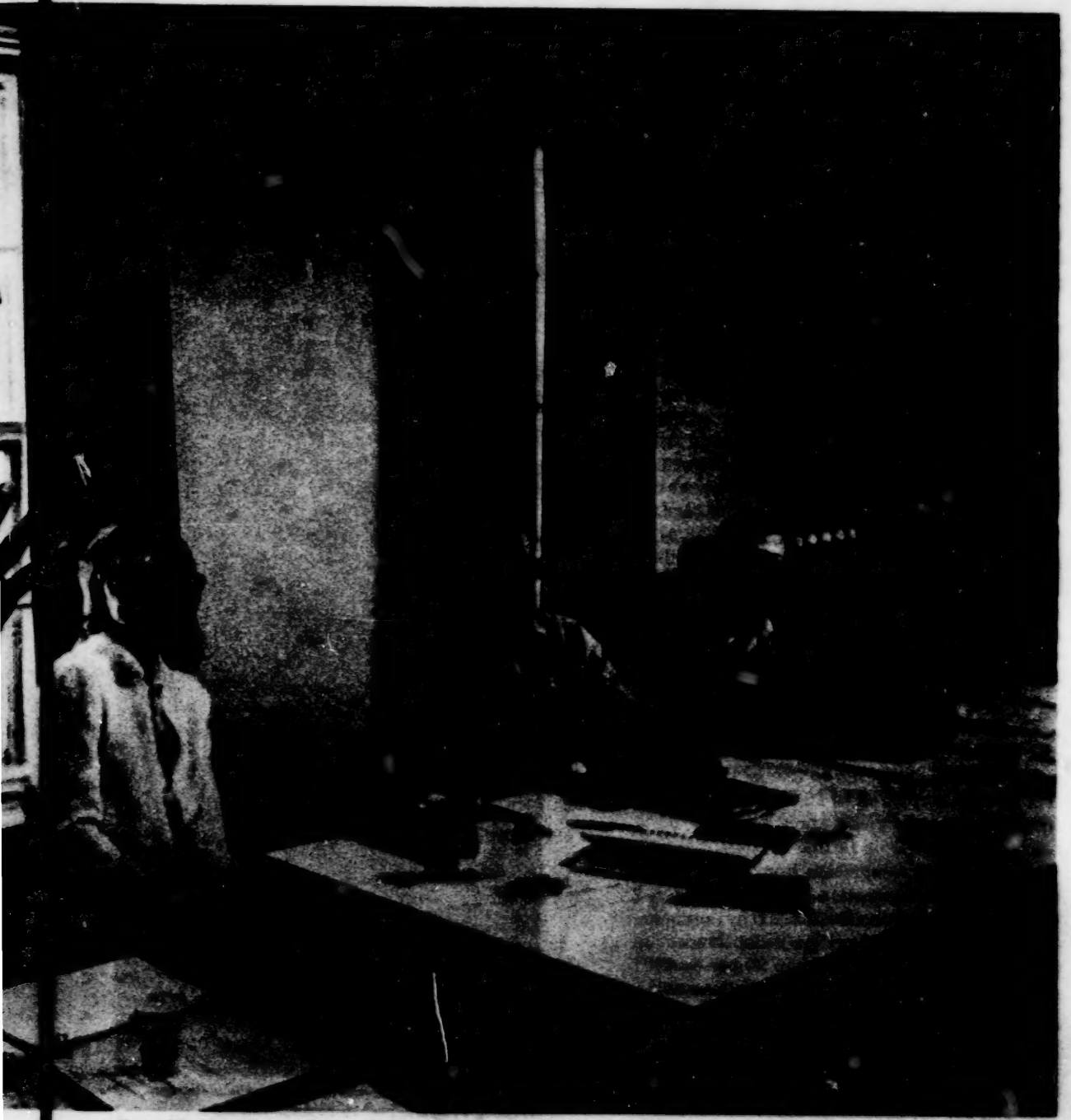
During 1983, the corporation had an average monthly staff of 3 321, down from 3 510 in 1982. Staff level at the end of the year was 3 105. A major reorganization at the senior management level occurred in March, reducing the number of positions reporting directly to the president from 13 to six.

As part of the corporation's efforts to reduce expenditures, a Voluntary Early Retirement Program was made available to 312 eligible staff. The program was accepted by 258 employees.

The second year of two-year agreements with employee unions provided average wage increases of 11 per cent to employees in the International Brotherhood of Electrical Workers Union (IBEW) Local 2067 and 11.75 per cent to employees in the Energy and Chemical Workers Union (ECW) Local 649. The union agreements expire at the end of 1983 December and 1984 January respectively. As of year-end, negotiations were under way with both unions.

An agreement was signed by the corporation, the ECW and IBEW, implementing a formalized Employee Assistance Program for all SPC staff. The program consists of three major activities dealing with work-related and personal problems: accurate assessment of the nature and severity of the problem, appropriate treatment and a continuing recovery plan with regular scheduled follow-up. Traditionally, business and industry have not had an effective system for identifying people who need help and motivating them to accept it. The Employee Assistance Program is designed to identify and deal with employee problems at an early stage.

SPC continued to actively support and pursue affirmative action practices. In 1983, affirmative action programs were continued to facilitate the training of persons of native ancestry, the physically handicapped and women in non-traditional roles. The development and training of women already employed in the corporation was emphasized in 1983.



Bryan Nicarity, director, Development and Training, discusses counselling interviews with SPC employees.

Since 1978 March, Headstart Employment Corporation, a non-profit organization to train and academically upgrade the disadvantaged, has been operating in close association with SPC and its subsidiary North-Sask Electric Ltd. (NSE).

In 1983, the training through productive work resulted in revenue to Headstart of $1 015 189 for construction work performed which, along with the retained earnings and interest, sustained the operation of this program.

Academic upgrading in 1983 commenced with 15 trainees attending community colleges throughout the province. Five of these trainees were academically upgraded to a Grade 12 diploma level and were ready to move on to new employment. Eight graduates have been placed with Saskatchewan contractors in the last two years.

SPC continued to encourage high levels of employee safety. In 1983, there were 58 lost-time injuries compared to 41 in 1982. Although the 1983 rate is higher, SPC's record is still good. Vehicle accidents decreased from 185 in 1982 to 162 in 1983.

Public safety awareness programs continued to be an important activity carried on by field staff. Talks and meetings were conducted with school classes, service clubs and contractors. In 1983, there was one public fatality compared to five in 1982 and five injuries compared to 15 in 1982. For the first time in many years, there were no electrical fatalities on farms.

SPC received recognition from both the Canadian Gas Association and the Canadian Electrical Association for the sixth consecutive year for having a reduction in lost-time injuries by more than 20 per cent over the previous year in gas operations and 25 per cent over the previous three-year average in electrical operations.

In 1983, 97 safety training courses were conducted for employees in defensive driving, first aid, cardiopulmonary resuscitation and fire safety.

James Bird of La Ronge, trainee in the Headstart Training Program, performs routine electrical maintenance work.

# Financial Performance

Bob Bean, director, Rates, Revenue Planning & Business Policy, explains SPC's rates in preparation for SPC's application to Public Utilities Review Commission. Also shown is Autumn Scraper, co-ordinator, Regulatory Administration.

## Operational Results

The corporation undertook a number of measures throughout the year to improve its financial situation. The corporation experienced its third consecutive net loss in 1983, amounting to $19.7 million. This loss was the result of rapid increases in costs, particularly costs for natural gas and higher interest costs on increasing amounts of borrowed capital plus increased costs for goods and services required by the corporation.

Restraint measures included a major program to reduce costs including reducing staff from a peak of 3 610 in 1982 May to 3 105 by the end of 1983. The Souris Valley Mine at Estevan was closed and the A.L. Cole Generating Station was mothballed in order to reduce costs. Longer hours of work and wage restraints for management staff were instituted. Capital expenditures were reduced wherever possible.

In addition, SPC applied to the Public Utilities Review Commission (PURC) for rate increases to come into effect in 1983. The Public Utilities Review Commission was established by the provincial government to provide an independent and impartial examination of rates charged by Crown-owned utilities in Saskatchewan and to allow for public input into the rate setting process.

While the corporation experienced a loss in 1983, the cost-cutting measures and rate increases obtained did result in an improved financial outlook by year-end.

## Revenue

Total revenue for the corporation in 1983 amounted to $704.9 million. This is an increase of $57.9 million or 9.0 per cent over 1982.

Revenue from electricity sales increased $38.7 million to $365.3 million of which $18.7 million was due to increased consumption and $20.0 million due to rate increases implemented during the year. The electric rate increase awarded by PURC in an interim order amounted to 15 per cent effective

July 09 on all classes except for small commercial customers who received no increase.

Revenue from gas sales increased $13 million to $307.5 million. The majority of this increase which occurred in retail sales arose from a $21.9 million increase due to rate changes implemented during the year. This was offset by an $11.2 million reduction as a result of decreased consumption.

The interim rate increase awarded by the Public Utilities Review Commission was 13 per cent taking effect on 1983 July 09. At SPC's request the Commission ordered that any net changes in the cost of natural gas to SPC which occurred pursuant to any change in the Alberta border price, Federal taxes, or Saskatchewan field gate prices be passed on to customers. Accordingly SPC reduced its natural gas rates to customers by about two per cent on 1983 September 01 making the net gas rate increase in 1983 10.9 per cent.

## Expenses

Expenses for 1983 totalled $724.6 million an increase of $74.2 million or 11.4 per cent over 1982.

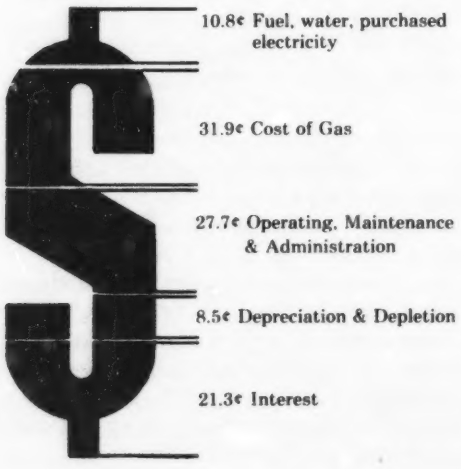
The cost of fuel for electrical generation including coal, natural gas and oil, in addition to the purchase of imported electricity and water rental, increased by $10.5 million or 15.4 per cent over 1982. The higher cost fuel alternatives, natural gas and coal, were used during the year due to decreased water flows in the Saskatchewan River system.

The cost of gas sold rose by $23.6 million to $231.0 million for an increase of 11.4 per cent because of an increase in Saskatchewan natural gas prices and higher Alberta border prices. These increases were partially offset by decreases in federal natural gas taxes.

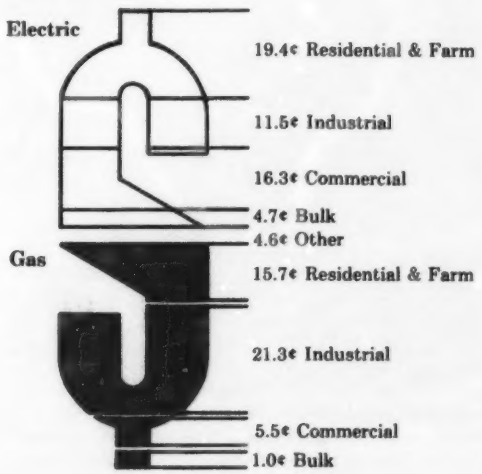
The corporation made significant gains in controlling operating, maintenance and administration costs. Cost saving measures have enabled the corporation to hold the increase in controllable operating, maintenance and administrative costs to $9.7 million or 4.6 per cent over 1982 costs.

Capital programs were reviewed in detail and $60 million deferred or cancelled from the 1983 capital program. In spite of these restraints, interest costs charged to operations increased $29.5 million or 23.6 per cent over 1982 for a total of $154.2 million in 1983. A major cause of this increase was the commissioning of the second generating unit at the Poplar River Power Station.

**Expenses**


10.8¢ Fuel, water, purchased electricity
31.9¢ Cost of Gas
27.7¢ Operating, Maintenance & Administration
8.5¢ Depreciation & Depletion
21.3¢ Interest

**Revenue**



Penny MacKay, wage calculation clerk, Payroll Accounting.

## Capital Expenditures

Capital expenditures in 1983 totalled $348.5 million, an increase of $76.2 million over 1982. Total capital expenditures for gas projects in 1983 was $53 million and for electric projects $291.2 million.

The Province of Saskatchewan borrowed $352.8 million in 1983 to meet the corporation's financing needs at an average interest cost of 12.41 per cent.

### Taxes and Payments in Lieu of Taxes

| | ($000) | |
|---|---|---|
| Federal Grant in Lieu of Natural Gas and Gas Liquids Tax | $ 48 272 | |
| Grant in Lieu of Petroleum and Gas Revenue Tax | 2 774 | $ 51 046 |
| **Municipalities** | | |
| Grants in Lieu of Taxes | 12 703 | |
| Grants in Lieu of Taxes on Mining Operations | 857 | |
| Surcharges on Electricity Sales | 12 494 | |
| Other Grants and Payments | 605 | 26 659 |
| **Saskatchewan Education and Health Tax on Electricity** | | 12 728 |
| **Saskatchewan Royalties and Rental on Coal, Gas, and Water** | | 12 379 |
| | | 102 812 |
| **Other payments to Federal, Alberta and Saskatchewan Governments** | | 46 434 |
| | | $149 246 |

Aerial view of old Nipawin bridge and site of Nipawin Hydroelectric Project.

# Financial Results 1983

## Saskatchewan Power Corporation

**and wholly-owned subsidiaries**

*North-Sask Electric Ltd.—operates electric generating plants and distribution systems at various locations in the northern part of the province.*

*Many Islands Pipe Lines Limited*

*Many Islands Pipe Lines (Canada) Limited—gathers, produces and purchases gas in Alberta for the use of the Corporation and transports gas through its interprovincial transmission lines from the Alberta-Saskatchewan border to Saskatchewan Power Corporation facilities.*

*Consumers Oil Limited—engages in gas development and production in western Canada.*

**SASKATCHEWAN POWER CORPORATION**

# CONSOLIDATED STATEMENT OF OPERATIONS AND EARNINGS RETAINED IN THE CORPORATION

**for the years ended December 31**

| | 1983 | 1982 As Restated |
|---|---|---|
| | (in thousands) | |
| **REVENUE** | | |
| Electricity sales | $365 308 | $326 591 |
| Gas sales | 307 483 | 294 491 |
| Other | 32 063 | 25 838 |
| | 704 854 | 646 920 |
| **EXPENSES** | | |
| Fuel, water and purchased electricity | 78 484 | 68 032 |
| Cost of gas sold (Note 9) | 230 986 | 207 365 |
| Operating, maintenance and administration | 199 032 | 192 212 |
| Depreciation and depletion (Note 1) | 61 835 | 57 960 |
| | 570 337 | 525 569 |
| **EARNINGS BEFORE INTEREST** | 134 517 | 121 351 |
| **INTEREST EXPENSE** | | |
| Long-term debt (Note 4) | 164 976 | 128 528 |
| Other | 21 700 | 21 981 |
| Capitalized (Note 1) | (32 435) | (25 745) |
| | 154 241 | 124 764 |
| **NET LOSS** | (19 724) | (3 413) |
| **EARNINGS RETAINED IN THE CORPORATION** | | |
| At beginning of year (Note 3) | 232 287 | 222 000 |
| Transferred from Rate Stabilization Reserve | — | 13 700 |
| At end of year | $212 563 | $232 287 |

See accompanying notes.

## SASKATCHEWAN POWER CORPORATION
# CONSOLIDATED STATEMENT OF CHANGES IN FINANCIAL POSITION
**for the years ended December 31**

| | 1983 | 1982 As Restated |
|---|---|---|
| | (in thousands) | |
| **SOURCES OF WORKING CAPITAL** | | |
| Operations | | |
| Net loss | $ (19 724) | $(3 413) |
| Items not affecting working capital: | | |
| Depreciation and depletion (Note 1) | 61 835 | 57 960 |
| Other | 5 426 | 1 593 |
| | 47 537 | 56 140 |
| Long-term debt—Province of Saskatchewan | 352 795 | 356 047 |
| Contributions in aid of construction | 13 090 | 13 246 |
| Sale of dragline | — | 45 000 |
| Other non-current items | 804 | 2 077 |
| | 414 226 | 472 510 |
| **APPLICATION OF WORKING CAPITAL** | | |
| Capital expenditures | 348 474 | 272 307 |
| Reduction in long-term debt | 25 024 | 67 304 |
| Customer deposits refunded | 6 468 | — |
| Voluntary Early Retirement Program (Note 1) | 7 412 | — |
| Other non-current items | 6 364 | 2 194 |
| | 393 742 | 341 805 |
| **INCREASE IN WORKING CAPITAL** | $20 484 | $130 705 |

See accompanying notes.

## AUDITOR'S REPORT

Regina, Saskatchewan
1984 March 15

To the Members of the Legislative Assembly
Province of Saskatchewan

I have examined the consolidated statement of financial position of Saskatchewan Power Corporation as at 1983 December 31, and the consolidated statements of operations and earnings retained in the corporation and changes in financial position for the year then ended. My examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as I considered necessary in the circumstances.

In my opinion, these consolidated financial statements present fairly the financial position of Saskatchewan Power Corporation as at 1983 December 31 and the results of its operations and changes in its financial position for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

W.G. Lutz, F.C.A.
Provincial Auditor

**SASKATCHEWAN POWER CORPORATION**

# CONSOLIDATED STATEMENT OF FINANCIAL POSITION

**As at December 31**

| | 1983 | 1982 As Restated |
|---|---|---|
| | (in thousands) | |
| **FIXED ASSETS, at cost (Note 1)** | | |
| Fixed assets in service (Note 6) | $2 218 483 | $1 884 403 |
| Less accumulated depreciation & depletion | 593 906 | 544 350 |
| | 1 624 577 | 1 340 053 |
| Construction in progress | 329 169 | 329 257 |
| | 1 953 746 | 1 669 310 |
| **CURRENT ASSETS** | | |
| Cash and short-term investments | 49 299 | 49 761 |
| Accounts receivable and prepaid expenses | 148 725 | 170 949 |
| Inventories, at cost (Note 1) | 61 915 | 66 786 |
| | 259 939 | 287 496 |
| **DEFERRED CHARGES AND OTHER ASSETS (Note 5)** | 142 291 | 97 350 |
| | $2 355 976 | $2 054 156 |

See accompanying notes.

| | 1983 | 1982 As Restated |
|---|---|---|
| | (in thousands) | |
| **LONG-TERM DEBT net of sinking funds (Note 13)** | **$1 771 768** | **$1 415 923** |
| **CURRENT LIABILITIES** | | |
| Accounts payable and accrued liabilities | 215 665 | 220 279 |
| Long-term debt due within one year (Note 13) | 4 959 | 48 386 |
| | 220 624 | 268 665 |
| **DEFERRED LIABILITIES (Note 12)** | **12 637** | **7 082** |
| **DEFERRED INCOME (Note 11)** | **55 356** | **51 363** |
| **EQUITY** | | |
| Earnings retained in the Corporation | 212 563 | 232 287 |
| Contributions in aid of construction (Note 1) | 83 628 | 78 836 |
| | 296 191 | 311 123 |
| | $2 355 976 | $2 054 156 |

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1983 December 31

## 1. ACCOUNTING POLICIES

The Corporation's accounting policies are in accordance with generally accepted accounting principles. The following policies are considered to be significant:

(a) Principles of Consolidation—The consolidated financial statements include the accounts of the Corporation and its four wholly-owned subsidiaries.

(b) Joint Ventures—The Corporation follows the proportionate consolidation method of accounting for its participation in joint ventures. The 1983 comparisons are:

| | (000's) | |
|---|---|---|
| | Corporation Total | Joint Venture |
| Revenues | 704 854 | 18 342 |
| Expenses | 724 578 | 5 856 |
| Fixed Assets—at cost | 2 218 483 | 65 928 |

(c) Customer Capital Contributions—Capital contributions are required from customers when the cost of providing service is expected to exceed estimated revenue to be earned over a period of time. Where the deficiency is expected to continue beyond the estimated life of the facilities required to serve such customers, the contribution is classified as contributions in aid of construction. Where the deficiency is expected for only a portion of the life of the facilities, the contribution is classified as deferred revenue and amortized into income over an appropriate period.

(d) Gas and Coal Exploration Costs—The Corporation follows the full cost method of accounting for the acquisition cost of gas and coal in place and exploration and development costs.

(e) Depreciation and Depletion—Depreciation is calculated on a straight-line estimated service life basis for the various classes of property. The composite depreciation rate on the average plant in service was 3.26% in 1983 (3.33% in 1982). Depletion of gas and coal properties is calculated using the composite unit of production method based on estimated remaining recoverable gas and coal reserves and the unamortized costs of these reserves.

| | (000's) | |
|---|---|---|
| | 1983 | 1982 |
| Depreciation | $59 819 | $54 960 |
| Depletion | 2 767 | 3 710 |
| Capitalized | (751) | (710) |
| | $61 835 | $57 960 |

(f) Foreign Exchange on Long-Term Debt—All long-term debt payable in foreign currencies is recorded in Canadian dollar equivalents using exchange rates prevailing at year end. Unrealized gains and losses related to these foreign exchange translations, net of accumulated charges to income, are amortized over the remaining term of each obligation.

Accrued interest on the foreign long-term debt is recorded at exchange rates prevailing at year end. Interest paid during the year on foreign currency is translated at rates prevailing at the time of the transaction. Foreign currency gains and losses relative to these items are charged to income in the current period.

(g) Amortization of Debt Costs and Gains—Unamortized discounts and expense applicable to advances received from the Province of Saskatchewan are amortized in equal annual amounts over the respective term of each debt. Gains earned on the retirement of Province of Saskatchewan debentures held as investments in sinking funds cancelled before maturity, are amortized in the same way over the remaining term of the cancelled debt.

(h) Pension Fund Obligations—The Corporation provides pension plans for its employees, total costs of which amounted to $12 061 000 in 1983 ($10 743 000 in 1982). An amount of $2 200 000 was paid into the fund in 1983 ($2 166 000 in 1982) to cover the present value of the 1983 ad hoc increases granted to the present beneficiaries of the Power Corporation Superannuation Fund. An amount of $4 072 000, as determined actuarially, was paid into the Fund in 1983 to cover the present value of the costs to the Fund of the Voluntary Early Retirement Program (VERP). The Corporation makes regular payments into the Power Corporation Superannuation Fund at the actuarially determined rates equal to the charges against income. These rates will provide for future pension benefits over the remaining working lives of the employees. The most recent actuarial valuation indicated that

there are past service costs of $50 983 000 which will be funded and charged to future operations in this manner.

(i) Voluntary Early Retirement Program—The Corporation offered early retirement on a voluntary basis to 312 employees of which 258 accepted to take it effective 1983 August 31 or sooner. The total costs of the plan are to be amortized over four years commencing 1983 September 01 in equal monthly amounts of $392 407.

(j) Capitalization of Interest—Interest associated with major capital projects is capitalized during the construction period at the Corporation's weighted average interest rate on current year long-term and short-term borrowings and is included in the total cost of the project. The interest rate was 12.25% in 1983 and 16% in 1982.

(k) Fixed Assets—Cost includes direct material and labour and overhead costs such as engineering and administration that are considered applicable to the capital construction program. Interest on funds used during construction is capitalized.

The cost of additions to and replacement of fixed assets is capitalized when service life is extended. The cost of fixed assets retired less the proceeds of sale is charged to accumulated depreciation. When the complete asset unit is retired a gain or loss is recognized.

(l) Inventories—Maintenance, material and supplies as well as plant and mine repair parts are valued at average cost. Coal and fuel oil as well as gas in storage are valued on a first in first out basis.

## 2. STATUS OF THE CORPORATION

In 1929, the Saskatchewan Power Commission was established to produce and supply electrical energy in the Province. In 1949, the Saskatchewan Power Corporation was established by Order-in-Council to replace this function of the Commission. Pursuant to The Power Corporation Act passed in 1950 April 08, the Corporation was established in essentially its present form.

In accordance with the provisions of its Act, the Corporation's main functions are the generation, transmission, distribution and sale of electrical energy and the production, purchase, transmission, distribution and sale of natural gas.

The financial results of the Corporation are included in the consolidated financial statements of the Crown Investments Corporation of Saskatchewan.

Rates charged to the Corporation's Gas and Electricity users are subject to review and approval by the Public Utilities Review Commission of Saskatchewan.

## 3. RESTATEMENT

Cost of gas, earnings retained in the Corporation, and accounts payable at 1982 December 31 were restated to reflect retroactively amounts payable to the Government of Canada as grants in lieu of Petroleum and Gas Revenue Tax. These were reduced by $458 000 for 1981, and $1 296 000 for 1982.

Operating, maintenance and administration expenses and earnings retained in the Corporation were restated to reflect additional payments of Corporation Capital Tax of $60 000 for 1980, $371 000 for 1981, and $1 264 000 for 1982.

As a result of the foregoing, the 1982 cost of gas was decreased by $1 296 000, operating, maintenance and administration expenses were increased by $1 264 000, and the opening balance of earnings retained in the Corporation was increased by $27 000. Net loss for 1982 was reduced by $32 000 and accounts payable at 1982 December 31 were reduced by $59 000.

## 4. INTEREST ON LONG-TERM DEBT (000's)

| | 1983 | 1982 |
|---|---|---|
| Interest paid and accrued | $183 860 | $145 022 |
| Amortization of debt costs and gains: | | |
| Debt discount and expense | 1 953 | 1 208 |
| Gain on early repayment of debt | (821) | (1 385) |
| Foreign exchange provision | 6 115 | 5 888 |
| Sinking fund earnings | (26 131) | (22 205) |
| | $164 976 | $128 528 |

## 5. DEFERRED CHARGES AND OTHER ASSETS (000's)

| | 1983 | 1982 |
|---|---|---|
| Unrealized foreign exchange loss | $43 879 | $40 492 |
| Unamortized debt costs and gains | 30 719 | 11 476 |
| Deferred mining costs | 5 594 | 6 115 |
| Deferred cost of gas in storage | 34 539 | 31 307 |
| Construction contribution | 1 970 | 2 024 |
| Farm, insulation and Warm-up loans | 5 360 | 3 094 |
| Voluntary Early Retirement Program | 17 226 | — |
| Other | 3 004 | 2 842 |
| | $142 291 | $97 350 |

## 6. FIXED ASSETS IN SERVICE (000's)

| | Cost | Accumulated Depreciation and Depletion | Net Book Value 1983 | Net Book Value 1982 |
|---|---|---|---|---|
| Electric | | | | |
| Generation | $ 929 531 | $ 184 113 | $ 745 418 | $ 565 030 |
| Generation—Capitalized Lease | 32 085 | 3 900 | 28 185 | 29 103 |
| Transmission | 246 603 | 70 721 | 175 882 | 146 332 |
| Distribution | 409 800 | 134 781 | 275 019 | 249 180 |
| | 1 618 019 | 393 515 | 1 224 504 | 989 645 |
| Gas | | | | |
| Production | 141 581 | 37 481 | 104 100 | 104 008 |
| Gathering, Treatment & Compression | 60 737 | 29 851 | 30 886 | 25 058 |
| Transmission & Storage | 131 190 | 50 242 | 80 948 | 76 421 |
| Distribution | 172 210 | 48 841 | 123 369 | 91 093 |
| | 505 718 | 166 415 | 339 303 | 296 580 |
| General Plant | | | | |
| Buildings & Equipment | 93 046 | 33 768 | 59 278 | 52 136 |
| Equipment—Capitalized Lease | 1 700 | 208 | 1 492 | 1 692 |
| | 94 746 | 33 976 | 60 770 | 53 828 |
| | $2 218 483 | $ 593 906 | $1 624 577 | $1 340 053 |

## 7. REMUNERATION OF DIRECTORS AND SENIOR OFFICERS

The Corporation's directors and senior officers received in aggregate honoraria and salaries respectively of $656 352 in 1983 ($915 057 in 1982).

## 8. RELATED PARTY TRANSACTIONS

Included in these consolidated financial statements are income and expense amounts resulting from routine operating transactions conducted at prevailing market prices with various Saskatchewan Crown controlled departments, agencies and corporations with which the Corporation is related.

Account balances resulting from these transactions are included in the consolidated statement of financial position and are settled in normal trade terms.

Other amounts due to and from related parties and the terms of settlement are described separately in the consolidated financial statements and the notes thereto.

## 9. COMMITMENTS AND CONTINGENCIES

(a) At 1983 December 31, the Corporation was committed in the amount of approximately $219 million for construction materials, equipment and services on contracts not completed at year end and approximately $2 394 million for coal and natural gas contracted for future delivery valued at current prices.

(b) In 1969, the Corporation entered into an agreement for the purchase of gas by TransCanada PipeLines over a 5½ year period. The agreement provides for the return to the Corporation of a like amount at the same price. On application by TransCanada PipeLines, the National Energy Board ruled that effective 1976 November 01, the price to be paid by the Corporation for gas returned by TransCanada under this agreement would be the price established by agreement between the Alberta and Federal Governments plus transportation. This ruling by the National Energy Board was appealed to the Supreme Court of Canada. In 1981 December, the court ruled that the board had exceeded its authority in purporting to substitute the imputed Alberta Border Price for that fixed by the contract between the parties.

Delivery of gas to the Corporation started in 1976 November. The Corporation has paid the higher price under protest. The additional payments recorded as cost of gas were $6.7 million in 1980, $17.1 million in 1979, $18.4 million in 1978, $14.6 million in 1977 and $2.7 million in 1976.

In 1979, the Corporation commenced an action in the Saskatchewan Court of Queen's Bench for the recovery of monies paid under protest. This case is now proceeding.

(c) In 1983, the Cumberland House Local Community Authority #3 and various local groups and residents commenced legal action against the Corporation and the Province of Saskatchewan claiming $200 million as compensation for damages allegedly suffered due to the construction and operation of the Squaw Rapids Hydroelectric Station. The case is now proceeding.

(d) In 1982, the Corporation sold a dragline for $45 million. The purchaser of the dragline financed the transaction by issuing promissory notes due 2003 May 18, bearing interest at 12.75%. The notes were endorsed by the Corporation and the Corporation's liability as endorser is guaranteed by the Province of Saskatchewan. The notes were then sold. The Corporation holds a chattel mortgage on the dragline as security against its contingent liability.

## 10.

Petroleum and natural gas rights to approximately 0.43 million hectares (1.062 million acres) net of unexplored properties were transferred, at no cost, to SaskOil in 1979. Saskatchewan Power Corporation and its subsidiary Many Islands Pipe Lines (Canada) Limited have an overriding royalty interest and certain repurchase rights in these properties.

## 11. DEFERRED INCOME (000's)

| | 1983 | 1982 |
|---|---|---|
| Unamortized gain on dragline sale | 14 671 | 15 807 |
| Prepaid revenue | 40 685 | 35 556 |
| | $55 356 | $51 363 |

## 12. DEFERRED LIABILITIES (000's)

| | 1983 | 1982 |
|---|---|---|
| Customer deposit | 614 | 7 082 |
| Unamortized VERP | 11 423 | — |
| | $12 037 | $7 082 |

## 13. LONG-TERM DEBT ($000's)

### Advances from Province of Saskatchewan

| Repayable | Interest Rate | Debt Recorded |
|---|---|---|
| 1984 | 4¾-5 | $ 20 306*(1) |
| 1984 | 5¼-5½ | 3 036* |
| 1985 | 5½ | 6 064* |
| 1985 | 5½ | 2 140 |
| 1986 | 5⅞-6¼ | 11 326* |
| 1986 | 8¾ | 93 330 (1) |
| 1986 | 13⅞ | 75 000 |
| 1986-87 | 5¼-5½ | 13 033*(2) |
| 1987 | 6 | 5 855* |
| 1987 | 16¾ | 20 000 |
| 1987-88 | 5¼-6½ | 9 752*(2) |
| 1988 | 7¼ | 11 025* |
| 1988 | 16¾ | 20 000 |
| 1988-89 | 6½-7¼ | 27 908*(2) |
| 1989 | 7⅞ | 14 062*(1) |
| 1989 | 16¾ | 60 000 |
| 1989-90 | 7¼-8½ | 32 907*(2) |
| 1990 | 4⅞ | 3 671*(1) |
| 1990 | 8¾ | 15 000* |
| 1990-91 | 6¾-8¼ | 33 062*(2) |
| 1991 | 5¾ | 2 450* |
| 1991 | 16⅞ | 186 660 (1) |
| 1991-92 | 6¾-7½ | 27 613*(2) |
| 1992 | 15⅞ | 57 805 (1) |
| 1992 | 15 | 124 440 (1) |
| 1992-93 | 7-7½ | 23 189*(2) |
| 1993-94 | 7½ | 6 297*(2) |
| 1994 | 5½ | 3 769* |
| 1998 | 7¾-8¼ | 40 000* |
| 1999 | 10 | 20 000* |
| 2000 | 9⅞ | 2 963* |
| 2000 | 11¾ | 50 000* |
| 2001 | 10¼ | 50 000* |
| 2002 | 9 | 50 000* |
| 2002 | 13 | 75 000 |
| 2003 | 9½ | 45 000* |
| 2003 | 11-12 | 73 170 (2) |
| 2003 | 12¼ | 250 000 |
| 2004 | 10 | 60 000* |
| 2006 | 8⅞ | 93 330*(1) |
| 2007 | 8⅞ | 93 330*(1) |
| 2008 | 9¼ | 93 330*(1) |
| 2008 | 9 | 50 000 |
| | | $1 955 823 |

*Equity in Sinking Funds

| | |
|---|---|
| Advances from Province of Saskatchewan | $1 955 823 |
| Other Long-Term Debt | |
| House Mortgages—Various Rates | 77 |
| Saskatchewan Economic Development Corporation—This is the amount owing on an agreement for sale for the purchase of Real Estate, bearing interest at 11% and paid in equal monthly blended payments of principal and interest, ending 1986 July 01 | 746 |
| The obligation under Capital Lease, for the dragline at Coronach, is with the Continental Bank of Canada. The lease, which extends until 2014, has an implicit interest rate of 7.8% | 30,271 |
| The obligation under Capital Lease, for the Wang 140 Word Processing System is with Wang Equipment Service Canada Incorporated. The lease, which extends until 1985, has an interest rate of 14.015% | 88 |
| The obligation under Capital Lease, for other equipment is with Scotia Leasing Limited. The leases, which extend until 1987, have a variable interest rate determined monthly, based on the prime lending rate of the Bank of Nova Scotia | 1 329 |
| | 1 988 334 |
| Less: Equity in Sinking Funds | 211 607* |
| Long-Term Debt—Net of Sinking Fund | 1 776 727 |
| Amounts Due Within One Year | 4 959 |
| Net Long-Term Debt | $1 771 768 |

(1) Included in the foregoing,the face amount of U.S. dollar debt totalled $627 020 000.

(2) Advances totalling $246 931 000 with an original term of 20 years are subject to redemption on six months notice.

(3) Debt repayments and sinking fund installments on outstanding debt for the next five years are as follows: 1984-$4 127; 1985-$17 024; 1986-$190 121; 1987-$35 529; 1988-$42 604.

(4) Future minimum lease payments for the next years ending December 31 are as follows: 1984-$3 404; 1985-$3 378; 1986-$3 342; 1987-$3 312; 1988-$2 873; Subsequent-$51 019;Total-$67 328; Less amount representing interest-$35 640; Net Balance-$31 688.

# FINANCIAL STATISTICS (000's)

## CONSOLIDATED STATEMENT OF OPERATION:

| | 1983 | 1982 | 1981 | 1980 | 1979 | 1974 |
|---|---|---|---|---|---|---|
| **REVENUE** | | | | | | |
| Electricity sales | $ 365 308 | $ 326 591 | $ 282 037 | $ 242 078 | $ 216 161 | $ 90 003 |
| Gas sales | 307 483 | 294 491 | 227 826 | 188 448 | 170 620 | 51 626 |
| Other | 32 063 | 25 838 | 17 481 | 17 784 | 17 534 | 3 535 |
| | 704 854 | 646 920 | 527 344 | 448 310 | 404 315 | 145 164 |
| **EXPENSES** | | | | | | |
| Fuel, water and purchased electricity | 78 484 | 68 032 | 54 318 | 54 145 | 40 001 | 10 473 |
| Cost of gas sold | 230 986 | 207 365 | 146 523 | 116 307 | 105 306 | 20 800 |
| Operating, maintenance and administration | 199 032 | 192 212 | 179 651 | 147 252 | 117 188 | 49 262 |
| Depreciation and depletion | 61 835 | 57 960 | 50 855 | 41 217 | 37 812 | 26 967 |
| Interest expense—net | 154 241 | 124 764 | 96 232 | 67 912 | 62 263 | 25 936 |
| | 724 578 | 650 333 | 527 579 | 426 833 | 362 570 | 133 428 |
| **NET EARNINGS (LOSS)** | (19 724) | (3 413) | (235) | 21 477 | 41 745 | 11 736 |

## CONSOLIDATED STATEMENT OF CHANGES IN FINANCIAL POSITION

| | | | | | | |
|---|---|---|---|---|---|---|
| **SOURCE OF FUNDS** | | | | | | |
| Operations | 47 537 | 56 140 | 51 903 | 65 620 | 80 864 | 39 668 |
| Long-term debt | 352 795 | 356 047 | 253 860 | 48 750 | 58 950 | 23 517 |
| Contributions in aid of construction | 13 090 | 13 246 | 12 907 | 9 405 | 7 309 | 3 237 |
| Capital lease proceeds | — | 45 000 | — | — | 32 085 | — |
| Other | 804 | 2 077 | 769 | 1 851 | 6 901 | 652 |
| | 414 226 | 472 510 | 319 439 | 125 626 | 186 109 | 67 074 |
| **APPLICATION OF FUNDS** | | | | | | |
| Capital expenditures | 348 474 | 272 307 | 248 0[illegible] | 160 011 | 140 774 | 56 675 |
| Reduction in long-term debt | 25 024 | 67 304 | 43 181 | 33 086 | 35 413 | 31 362 |
| Dividends | — | — | — | 10 275 | 16 500 | — |
| Customer deposits refunded | 6 468 | — | — | — | — | — |
| Voluntary early retirement program | 7 412 | — | — | — | — | — |
| Other | 6 364 | 2 194 | 17 801 | 5 913 | 11 837 | — |
| | 393 742 | 341 805 | 309 062 | 209 285 | 204 524 | 88 037 |
| **INCREASE (DECREASE) IN WORKING CAPITAL** | 20 484 | 130 705 | 10 377 | (83 659) | (18 415) | (20 963) |

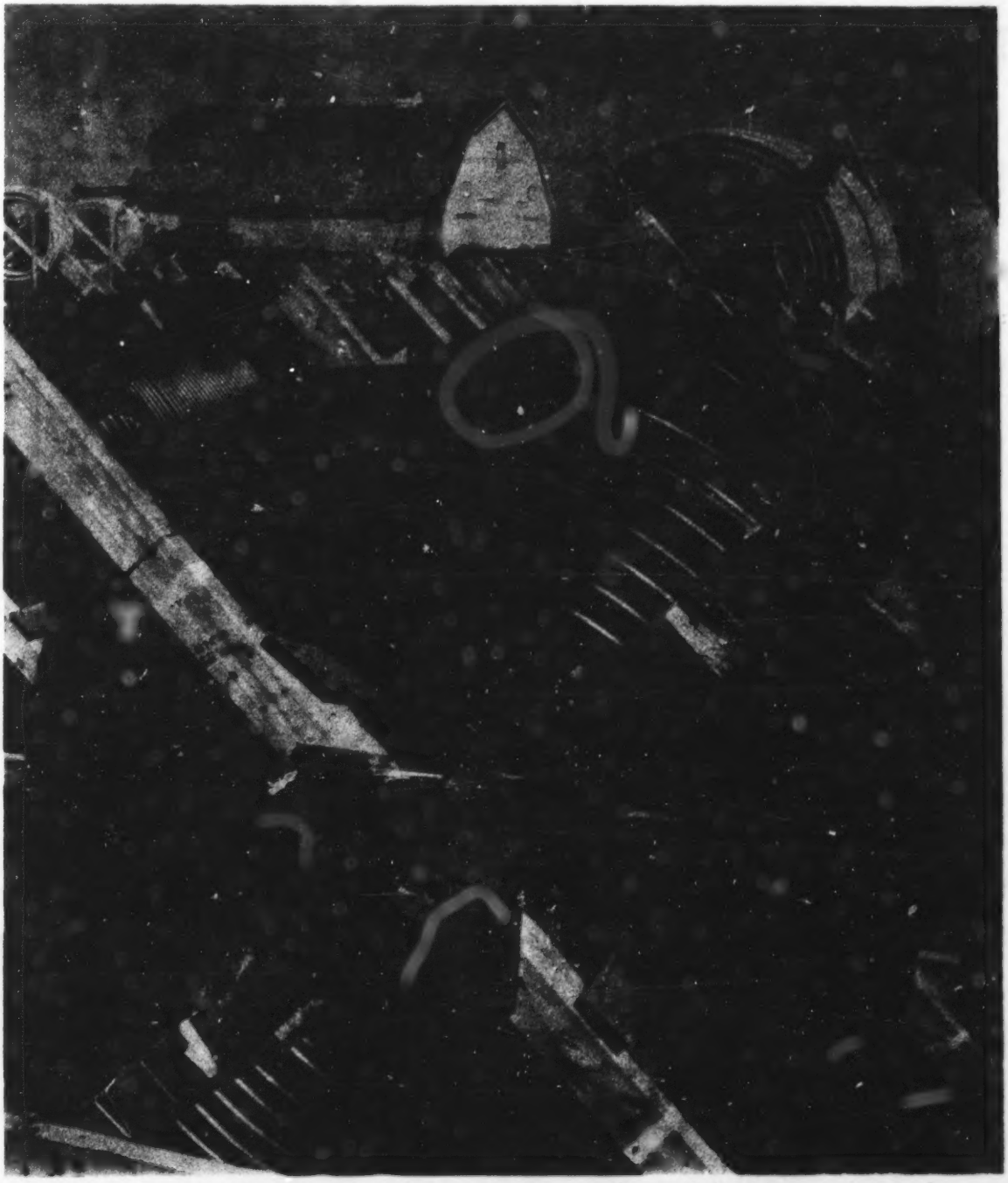
## CONSOLIDATED STATEMENT OF FINANCIAL POSITION

| | | | | | | |
|---|---|---|---|---|---|---|
| **ASSETS** | | | | | | |
| Fixed assets in service, at cost | 2 218 483 | 1 884 403 | 1 790 278 | 1 429 953 | 1 349 609 | 871 560 |
| Accumulated depreciation and depletion | (593 906) | (544 350) | (495 349) | (448 093) | (410 839) | (389 661) |
| Construction in progress | 329 169 | 329 257 | 189 708 | 306 126 | 230 483 | 38 859 |
| Current and other assets | 402 230 | 384 846 | 242 915 | 208 011 | 196 923 | 41 229 |
| | 2 355 976 | 2 054 156 | 1 727 552 | 1 496 997 | 1 366 176 | 681 987 |
| **LIABILITIES AND PROVINCE'S EQUITY** | | | | | | |
| Retained earnings | 212 563 | 232 287 | 222 000 | 222 235 | 211 033 | 160 689 |
| Rate stabilization reserve | — | — | 13 700 | 13 700 | 13 700 | — |
| Contributions in aid of construction | 83 628 | 78 836 | 75 415 | 70 796 | 66 706 | 49 052 |
| Long-term debt net of sinking funds | 1 771 768 | 1 415 923 | 1 107 140 | 900 160 | 871 576 | 391 336 |
| Current and other | 288 017 | 327 110 | 309 297 | 289 106 | 203 161 | 80 930 |
| | $2 355 976 | $2 054 156 | $1 727 552 | $1 496 997 | $1 366 176 | $681 987 |
| **PERCENTAGE EQUITY** | 14.3 | 18.0 | 21.9 | 25.4 | 25.1 | 34.9 |

## RECORD OF PROGRESS (Unaudited)

| | 1983 | 1982 | 1981 | 1980 | 1979 | 1974 |
|---|---|---|---|---|---|---|
| **ELECTRICITY** | | | | | | |
| Customers at December 31 | **381 278** | 370 406 | 364 772 | 352 772 | 347 485 | 291 512 |
| *Electricity sold ($10^6$ kW · h) | **9 096** | 8 468 | 8 423 | 8 106 | 7 840 | 6 169 |
| Average yearly residential consumption (kW · h) | **7 377** | 7 335 | 6 711 | 6 794 | 6 902 | 5 713 |
| Average yearly farm consumption (kW · h) | **18 566** | 18 474 | 15 875 | 16 138 | 16 440 | 11 969 |
| Rated generating capacity (kW) | | | | | | |
| Hydro | **564 600** | 564 600 | 564 600 | 467 000 | 467 000 | 467 000 |
| Steam | **1 759 500** | 1 573 500 | 1 573 500 | 1 573 500 | 1 349 500 | 1 057 000 |
| Internal combustion | **115 000** | 115 000 | 115 000 | 115 000 | 115 000 | 113 050 |
| Total | **2 439 100** | 2 253 100 | 2 253 100 | 2 155 500 | 1 931 500 | 1 637 050 |
| Seasonal gross system peak load (kW) | **2 120 000** | 1 886 000 | 1 925 000 | 1 858 000 | 1 724 000 | 1 289 600 |
| Pole kilometres of line excluding urban distribution system | | | | | | |
| 72 kV and higher | **9 690** | 9 680 | 9 603 | 9 447 | 9 153 | 8 229 |
| Under 72 kV | **125 248** | 124 661 | 124 099 | 123 389 | 122 567 | 118 457 |
| **NATURAL GAS** | | | | | | |
| (Gas volumes at 101.325 kPa) | | | | | | |
| Customers at December 31 | **244 441** | 233 700 | 227 557 | 221 390 | 215 695 | 173 250 |
| †Gas sold ($10^6$ $m^3$) | **2 823** | 3 012 | 2 814 | 3 029 | 3 127 | 3 235 |
| Average yearly residential consumption ($m^3$) | **3 741** | 4 405 | 3 707 | 4 032 | 4 641 | 4 887 |
| ‡Degree days deficiency (Regina) | **5 732** | 6 294 | 4 988 | 5 526 | 6 165 | 6 033 |
| Maximum daily consumption ($10^3$ $m^3$) | **20 000** | 18 550 | 17 046 | 17 515 | 17 588 | 14 733 |
| Kilometres of pipeline in service | | | | | | |
| Gathering | **1 036** | 1 033 | 1 018 | 985 | 985 | 816 |
| Transmission and laterals | **8 725** | 8 479 | 8 097 | 8 068 | 8 013 | 7 873 |
| Distribution | **11 545** | 5 902 | 5 706 | 5 553 | 5 411 | 4 582 |
| Average monthly employees | **3 321** | 3 510 | 3 453 | 3 280 | 3 112 | 2 625 |

*Retail plus intersystem, head office and bulk
†Includes intersystem usage
‡Celsius using 18 °C as base temperature.



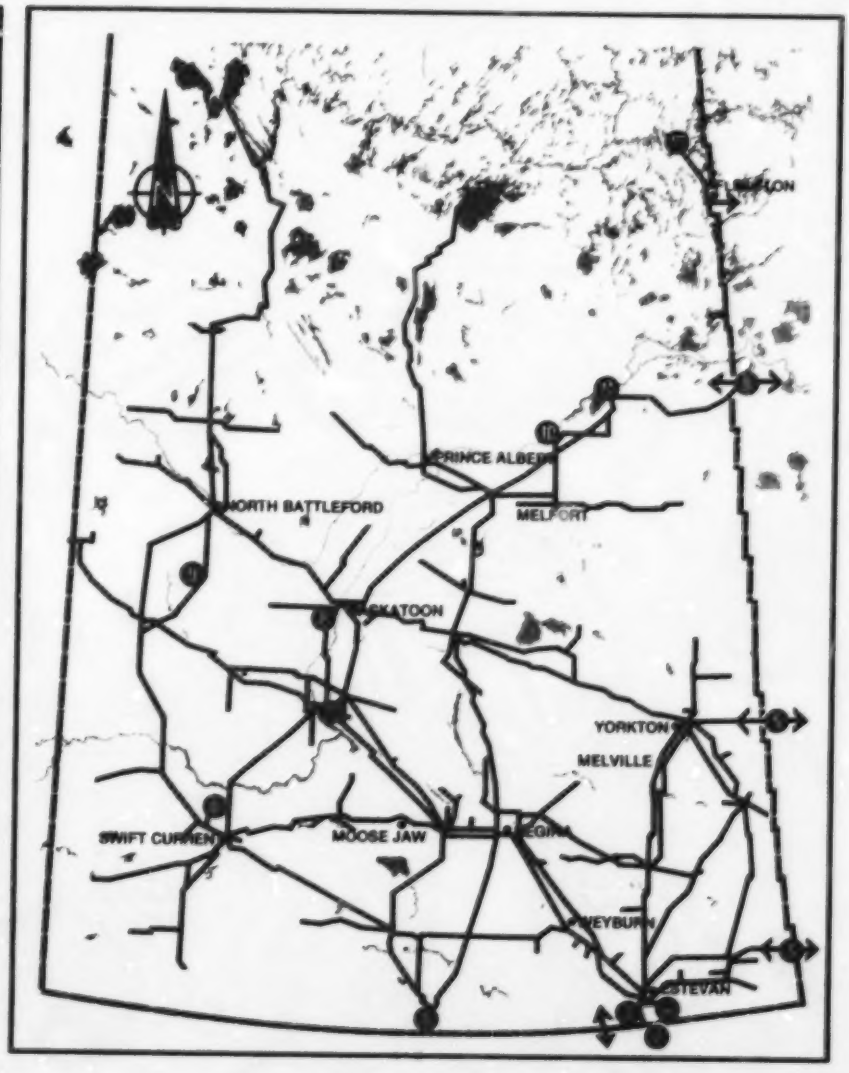
Coils of plastic pipe used in Natural Gas Distribution Program on farm near Pasqua, Saskatchewan.

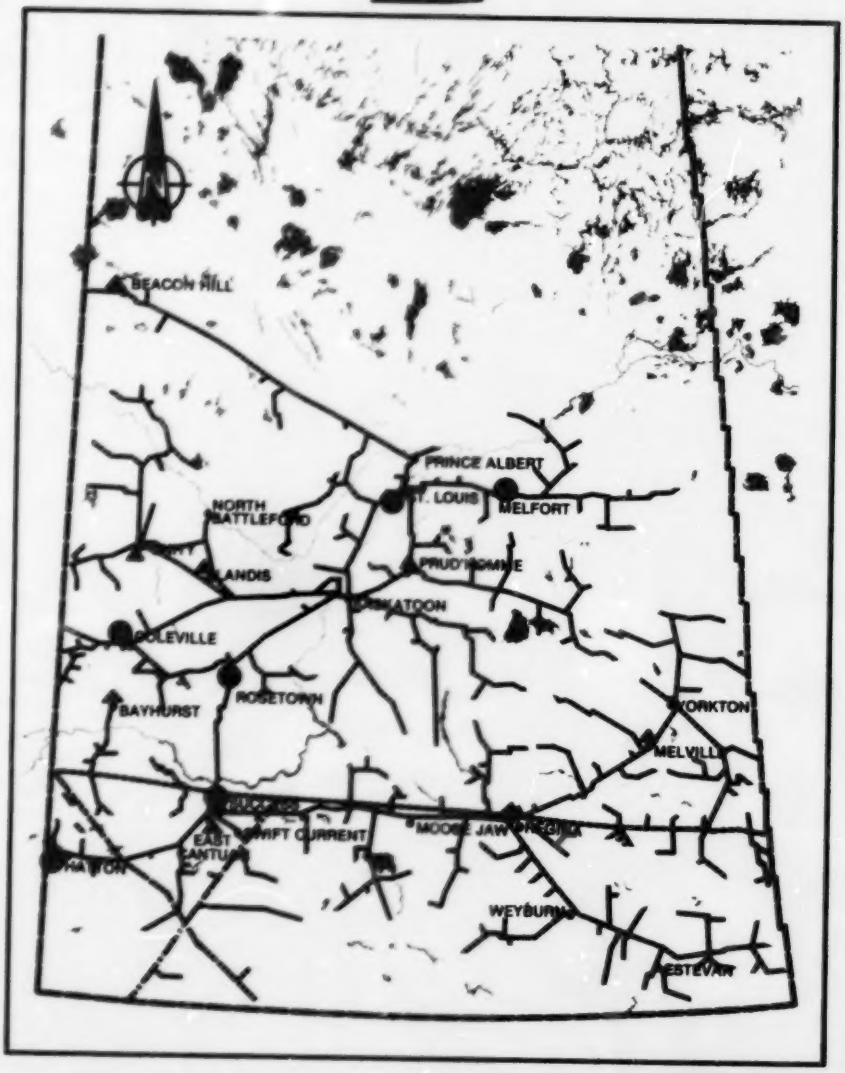
# Energy Systems in Saskatchewan

## Electricity

1 Poplar River Power Station
2 Basin Electric Tie-line
3 Boundary Dam Power Station
4 Estevan Power Station
5 Manitoba Hydro Tie-lines
6 Success Power Station
7 Coteau Creek Hydroelectric Power Station
8 Queen Elizabeth Power Station
9 Landis Power Station
10 Nipawin Hydroelectric Power Station (under construction)
11 Squaw Rapids Hydroelectric Power Station
12 Island Falls Hydroelectric Power Station

— Transmission Lines






**Natural Gas**

- Compressor Station
- Compressor Station and Storage Facility
- Transmission Lines
- TransCanada PipeLines Limited
- Consolidated Pipeline Co.
- Foothills Pipeline Ltd.